

Communicating to Promote Informed Decisions in the Context of Early Pregnancy Loss

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This is the authors' manuscript of the work published in final form as:

Brann, M., & Bute, J. J. (2017). Communicating to promote informed decisions in the context of early pregnancy loss. *Patient Education and Counseling*, 100(12), 2269–2274. Scopus.
<https://doi.org/10.1016/j.pec.2017.06.016>

Abstract

Objective. To evaluate residents' ability to engage standardized patients in informed decision making during a pregnancy loss scenario.

Methods. Forty patient encounters between interns and standardized patients were coded to assess informed decision-making practices, exploration of unexpressed concerns, and support provision.

Results. Interns engaged in minimum informed decision making but did not address all of the communicative elements necessary for informed decisions, and most elements were only partially addressed. Patients in this study did not receive information about all management options, their concerns were not addressed, and there was limited support communicated for their decision.

Conclusion. This study offers an initial assessment of a communicative approach to evaluate and improve decision making during early pregnancy loss. A comprehensive approach to making informed decisions must include discussion of all management options, exploration of patient preferences and concerns, and support for the patient's decision.

Practice Implications. Healthcare providers could benefit from communication skills training to communicate more effectively with patients to help them make more informed decisions.

Keywords: informed decision making; early pregnancy loss; support; emotional considerations; standardized patients

1. Introduction

As many as 25% of known pregnancies end in a miscarriage, which occurs when a pregnancy “ends on its own, within the first 20 weeks of gestation” [1]. Early pregnancy loss occurs within the first 12 weeks of gestation and is often a terrifying and unexpected event [2]. Symptoms of a miscarriage can include vaginal bleeding or discharge, pain, expulsion of tissue, or a sudden decrease in pregnancy symptoms; however, some women experience a missed miscarriage in which the patient is asymptomatic and unaware of the loss until she is diagnosed by a healthcare provider [1]. Most miscarriages are the result of chromosomal abnormalities in fetal development, but parental age, health status, and lifestyle factors (e.g., smoking) can also play a role [3]. In the majority of cases, a miscarriage does not affect a woman’s long-term health or her chances for a subsequent pregnancy [1]. What may affect women’s daily living, however, is how the miscarriage is managed. Women are likely to feel overwhelmed [4], anxious, and unprepared for coping with a miscarriage [5]. As academic obstetricians have noted, the conversation about managing an early pregnancy loss should begin with a review of all available management options and then an elicitation of patient preferences [6]. However, evidence suggests that informed decision making does not occur in many cases of early pregnancy loss [6].

1.1 Informed Decision Making

Informed decision making (IDM) is a “process by which physicians foster the informed participation of patients in clinical decision-making” [7]. IDM is one approach that is part of a growing trend encouraging patient participation in making health care decisions across a variety of medical contexts [8]. An IDM approach is especially useful in situations where one course of treatment is not inherently superior to another [8], which is the case in early pregnancy loss [6].

In fact, Wallace and colleagues have explicitly called for more research that applies an IDM model to the context of early miscarriage [6]. IDM involves both providing information and also eliciting patient perspectives. This process of informing a patient can facilitate a patient's active participation in decision making [9] and promote quality interactions with a healthcare provider [10], better knowledge about a health condition [11], trust of a healthcare provider [12], satisfaction with a treatment decision [13], and ultimately better treatment adherence and clinical outcomes [14, 15].

Braddock and colleagues [7, 16] identified nine communicative elements of informed decision making: (1) discussion of the nature of the decision (i.e., clinical issue), (2) description of alternatives for managing the issue, (3) discussion of pros (potential benefits) and cons (risks) of each alternative, (4) discussion of uncertainties associated with the decision, (5) assessment of the patient's understanding, (6) discussion of the patient's role in making the decision, (7) exploration of the effect of the decision on the context (e.g., patient's daily life), (8) assessment of the patient's desire for others' input, and (9) exploration of the patient's preferences. At a minimum, researchers argue that for a patient to make an informed decision at least two elements must exist in the conversation: discussion of the nature of the decision *and* either discussion of the patient's role *or* exploration of the patient's preferences [7]. Researchers in a wide variety of clinical contexts (e.g., periviability, [17]; psychiatry [18]) have used the IDM framework.

Scholars have argued that non-emergent early pregnancy loss is an ideal context for IDM because there are multiple, equally viable medical options for managing the miscarriage, yet this framework has rarely been applied to understanding communication about pregnancy loss [6]. This context illustrates a critical need for healthcare providers' effective communication skills in assisting women in making the best choice for them by discussing not only clinical issues about

pregnancy loss care (e.g., medical procedure, future pregnancies; [19]) but also women's own thoughts and feelings about loss and care [20]. Such discussions involve educating women about all four medically reasonable options for managing an early pregnancy loss: expectant management, medical management, and two types of surgical management options [6]. Expectant management involves no medical intervention and is considered a "wait-and-see" approach as a woman's body is expected to expel the pregnancy on its own. Medical management involves pharmaceutical assistance to progress the miscarriage. One surgical option involves a local anesthesia and is conducted in a physician's office; whereas, the other option involves general anesthesia and is performed in a hospital or surgery center, both of which require the cervix to be dilated and the contents of the uterus to be surgically removed.

In addition to evaluating all the available options, research suggests that women make treatment decisions based on unspoken concerns, such as fear of anesthesia or uncertainty about expelling the pregnancy at home [21]. If women who are under emotional duress are not expressing the concerns that influence their decisions and healthcare providers are not exploring concerns to assist women in making informed decisions, then patients might rush to make decisions without fully assessing the management options [20, 21]. Healthcare providers need to explore not only emotional concerns but also provide support to address these concerns and the decision the patient ultimately chooses. In fact, Street [22] argues that when healthcare providers use supportive communication, patients are more likely to express their concerns, which could help providers deliver necessary information for informed decision making. Moreover, research suggests that providers favor patient-centered decisions in cases of pregnancy loss [20].

1.2 Medical Skills Training

Communication skills training is vital to an effective medical residency program. Interpersonal skills and communication is one of the core competencies assessed by the Accreditation Council for Graduate Medical Education (ACGME). Residency programs offer a convenient, appropriate, and ready context in which to evaluate how practitioners are trained and to implement training programs for improving communication about pregnancy loss. One method is to utilize standardized patients (SPs) in simulations as a training tool for healthcare providers-in-training [23, 24, 25]. Using SPs (i.e., trained actors) is an effective way to improve healthcare providers' communication skills because SPs help prepare medical trainees for working with real patients through simulations of emergent and sensitive medical encounters [26]. Using SPs offers a realistic approach to practicing skills and an opportunity for residents to receive feedback from other physicians and the SP; however, SP scenarios might lack exposure to the potential variety of patient responses and approaches. [27].

Still, existing literature has indicated positive outcomes of using SPs, including improvement of bad news delivery [21], communication of empathy [28], and relationship building [23], all of which could be beneficial in a patient encounter involving a miscarriage. Using SPs has been shown to improve healthcare providers' communication skills, particularly as it relates to informed and shared decision making practices, in the context of fibromyalgia care [10] and oncology/palliative care [29].

1.3 Study Purpose

Research suggests that women coping with early pregnancy loss view communication with their healthcare providers as critically important in meeting their desires for “clear and comprehensive information about both miscarriage diagnosis and treatment options” in order to make informed decisions [30]. Therefore, our purpose with this study was to evaluate an

objective structured clinical examination (OSCE) program in which obstetrics/gynecology (OB/GYN) residents are trained using standardized patients to engage women in decision making during a pregnancy loss scenario. More specifically, we wanted to know the extent to which interns engaged standardized patients in IDM. The following research questions guided our inquiry:

RQ1: To what extent did interns communicatively engage patients in informed decision making?

RQ2: To what extent did interns present patients with the full range of medically viable options to manage an early pregnancy loss?

Additionally, we were interested in other evidence-based communicative strategies (i.e., eliciting concerns and providing support) that have been shown to influence medical decisions [21, 22].

Research suggests that unexpressed, and unexplored, concerns guide most women's decisions for managing a miscarriage [21], and physicians' use of facilitative communication (e.g., supportive talk) encourages patients' active participation in expressing concerns and making decisions [22].

Therefore, the following research questions were posited:

RQ3: To what extent did interns explore concerns that might influence patients' decision making regarding pregnancy loss management?

RQ4: To what extent did interns provide supportive statements to patients regarding the decision?

2. Methods

After receiving institutional review board approval, we observed 40 patient encounters between OB/GYN interns and standardized patients at a medical institution in the Midwest.

Interns participate in the patient encounter during an OSCE at the end of their first year of

residency. At least one investigator observed 18 live patient encounters via video feed, and both authors also reviewed video recordings of the 40 patient encounters. We coded the patient encounters to assess informed decision making communication behaviors.

2.1 Objective Structured Clinical Examination (OSCE)

Forty OB/GYN interns (36 females, 4 males) participated in the pregnancy loss OSCE during the previous 5 years. Upon approaching an examination room, interns were instructed to read a standard door note that describes a “missed AB” scenario (i.e., missed abortion or miscarriage). The standardized patient at this station is a paid, trained actor who portrays a patient who desires the pregnancy, is without her spouse, has had a previous healthy pregnancy and birth, and is unaware that she is miscarrying. She is 9 weeks pregnant, asymptomatic, and has just had a routine ultrasound and is waiting for the physician to discuss the results with her. Interns have approximately 15 minutes with the standardized patient to deliver the news of the miscarriage and explain to her the management options to help her decide on a course of treatment. The goal of this station is to effectively deliver bad news, and an attending physician observes the patient encounters to provide feedback to the interns to help them improve their communication skills.

2.2 Data Analysis

We independently coded the interactions using Braddock et al.’s [7, 16] validated informed decision making model (IDM-18). This coding scheme can be used with either recordings or transcripts [7, 16]. Beyond general medical settings, this coding instrument has been successfully adapted to other specific clinical contexts [18]. The coding model requires coders to score participants on the 9 informed decision-making elements by assessing the element as either absent (score = 0), partially present (score = 1), or completely present (score =

2). Interns' communicative utterances were coded as absent if they did not mention the element, partial if only part of the element was discussed (e.g., some, but not all, medical options), and complete if the element was discussed in its entirety. The scores of all nine elements are summed for a score ranging between 0 and 18. Higher scores are ideal as they reflect more extensive discussion of the informed decision-making elements. In addition to the informed decision-making elements presented by Braddock and colleagues [7, 16], we also coded for two additional communicative elements that previous research suggests affects informed decision making: exploration of the patient's concerns [21] and provision of supportive statements [31]. We used the same coding scheme of absent (0), partial (1), and complete (2) for these additional elements. We created a composite score (IDM-Total) with the 9 original elements and these two additional ones for total scores that could range from 0 to 22. We also calculated one additional summative score that Braddock et al. [7] referred to as the IDM-Min, which is when the healthcare provider engaged in two minimum requirements: discussion of the nature of the decision *and* either discussion of the patient's role *or* exploration of the patient's preferences. This is a dichotomous measure scored as either absent (score = 0) or present (score = 1).

We developed a codebook from descriptions used in other health care settings [7, 16, 17, 18] and adapted those descriptions to the pregnancy loss context (examples are provided in the results section). We assessed interrater reliability on 23% of the coded patient encounters using Scott's pi [32], which equaled an acceptable .80. In cases of disagreement, we met to discuss the differences, which were always delineating between whether an element was partially or completely addressed. After discussion, we came to a consensus on every initial disagreement. Both investigators coded and discussed all but six patient encounters. Confident in our ability to use our coding scheme, the lead investigator coded the remaining six encounters.

3. Results

All interns provided each standardized patient with the news that she was miscarrying, but beyond that, their engagement in the informed decision making elements varied.

3.1 Engagement of Patients in Informed Decision Making

To answer the first research question, we assessed the extent to which interns engaged in each element of informed decision making (see Table 1). All interns completely discussed the nature of the decision (i.e., informed the woman that she was having a miscarriage and what that meant). All interns also engaged in what Braddock et al. [7, 16] termed minimum informed decision making (IDM-Min), which involved discussing the nature of the decision and *either* the patient's role in decision making (e.g., "let us know what you decide;" 90% complete, 7.5% partial) *or* exploring the patient's preference for the decision (e.g., "what option are you leaning toward?" 52.5% complete, 45% partial). Additionally, all interns engaged, at least partially, in a discussion of management alternatives. These four elements were the highest scoring elements. The lowest scoring element was assessing a patient's understanding of her management options with only 12.5% of interns ($n = 5$) partially engaging the patient in a discussion, and no one doing it completely. Additionally, less than a fourth of the interns engaged in discussions of concerns ($n = 8$, 20%) or contextual effects ($n = 9$, 22.5%).

No interns engaged in complete informed decision making. The highest IDM-18 score was 13 out of a possible 18 ($M = 10$, $SD = 1.45$), and the highest IDM-Total score was 15 out of 22 ($M = 11.03$, $SD = 1.87$) suggesting that a fully comprehensive discussion never occurred (see Figures 1 & 2).

3.2 Discussion of All Management Options

To answer the second research question, we assessed how completely the interns addressed the second element of the IDM, which is to discuss treatment alternatives. All interns discussed more than one management option. However, only 11 interns (27.5%) provided the woman with all four medically viable options, which according to Linnet Olesen et al. [21] is crucial for informed decision making in the case of early pregnancy loss.

3.3 Exploration of Emotional Considerations

To answer the third research question, we assessed how completely the interns addressed the element we added to the coding scheme that focuses on whether they elicited or responded to the patient's concerns about the management options [21]. Only eight (20%) of the interns explored concerns, and only one of these completely addressed this element. We coded interns partially addressing concerns when they either spoke in generalities about patient fears (e.g., "sometimes people are scared when this happens") or implicitly responded to an expressed concern (e.g., a patient stated, "the thought of handling this on my own at home is terrifying" and the intern stated, "okay then let's talk about the surgical option" instead of assessing what was terrifying for the patient). The one intern who was coded as completely addressing concerns explicitly asked about the patient's fears and discussed that fear with the patient. In all other instances when this was partially addressed, interns implicitly responded to patient-initiated concerns.

3. 4 Provision of Supportive Statements

To answer the fourth research question, we assessed how completely the interns provided supportive statements and/or reassurance to each patient as she discussed her management decision. Sixteen interns (40%) did not offer any type of supportive statement to the patient; another 16 interns (40%) only partially supported the patient, and 8 interns (20%) were coded as

providing complete support to the patient. Interns who provided partial support gave general supportive statements (e.g., “one choice isn’t any better or worse than another”), and interns who provided complete support provided reassurances, encouragement, and/or optimism for the patient’s decision (e.g., “I think you have made a good choice.”).

4. Discussion and Conclusion

4.1 Discussion

The results from this study provide a glimpse into how well OB/GYN interns are assisting patients in making informed decisions when faced with an impending miscarriage. We answered the call from Wallace and colleagues [6] to apply an informed decision making framework to early pregnancy loss scenarios. If early pregnancy loss is an ideal context for IDM, as suggested by Wallace and colleagues [6], then communication training should begin with interns who are learning to interact as independent physicians. Although interns in this study were effective at providing patients with minimal information to help them make decisions, none of the interns engaged in a fully comprehensive discussion, and several informed decision making elements were either never addressed or only partially addressed. The majority of interns did not assess patients’ understanding, examine patients’ concerns, or explore the effect of the decision on the woman’s daily life. Additionally, most interns did not describe all the medically viable options nor did they review all the pros and cons of the alternatives they did present. Finally, interns need to more completely discuss a patient’s uncertainties with making a decision and then provide support for the decision once it is made.

An early pregnancy loss demands that women be fully informed of their treatment options to make the best possible decision for their personal experience [21]. Results of this study suggest such conversations did not occur in this training context. Wallace and colleagues

[5] provide a checklist for providers to use when helping patients determine their treatment priorities. Inherent in this checklist is the need to communicate with the patient and determine what factors are most important to her when making management decisions. This includes discussing uncertainties, preferences, and concerns, all of which are addressed in our adaptation of Braddock et al.'s [7, 16] informed decision making scheme but that were not discussed by the interns in this study.

Theoretically, the results from this study provide additional support that Braddock and colleagues' [7, 16] informed decision making coding scheme can be applied effectively in various contexts and evidence that the scheme can benefit from the inclusion of context-specific elements. In this case of early pregnancy loss, those elements included exploration of concerns and provision of support for the decision. By drawing on the IDM elements, healthcare providers can begin conversations with patients to assist them in making life-altering decisions in the midst of a traumatic event.

Although the IDM is an imperfect scoring system, as is evident by some of our initial coding disagreements, it does provide a starting point to understand the absence or presence of communicative actions involving informed decision making, particularly in a context that has rarely been examined using this approach. We recognize that the coding of elements as absent, partial, or complete might not fully capture the range of communicative behaviors that unfold in clinical contexts. What may provide even greater insight is a qualitative assessment of the patient encounters in which healthcare providers deliver bad news and attempt to provide information and support to patients to help them make informed decisions. Understanding the content of the patient encounters, moreso than simply the occurrence of various informed decision making

elements, could provide greater opportunities for healthcare providers to know how best to engage patients in making informed decisions.

Particular to this scenario, we believe that to provide the most effective training to interns to help them utilize the informed decision making elements, we must determine the range of communication strategies for engaging in IDM using a person-centered approach [see 33]. For example, stylistically, interns present bad news in multiple ways. The next step in this line of research would be to determine from women who have experienced a pregnancy loss what their preferred messaging would sound like. Having experienced a loss allows women to share the effective and ineffective communication they experienced with their healthcare providers and enlighten others to what sensitive delivery of bad news could be [20].

Additionally, researchers could explore other effective communicative elements providers face when telling a woman that her pregnancy is no longer viable. Social support from healthcare providers is vital [34] and can greatly affect the emotional outcomes during a pregnancy loss. We addressed support directly tied to the decision; however, providers can communicate support in other aspects of the patient encounter, and researchers should study its effectiveness. Also worth exploring, although not specifically addressed in IDM, is the use of empathic communication. This might be particularly salient for such an emotionally charged context.

4.2 Conclusion

Overall, this study offers a first step in using a communicative approach to evaluating and improving decision making in the case of early pregnancy loss. We offer specific suggestions for training healthcare providers while also providing a foundation for future research.

4.3 Practice Implications

What is encouraging from this study is that interns are engaging in some minimally effective informed decision making behaviors. What is also evident is that interns are not performing some tasks. Based on the results of our analysis, we argue that communication skills training focused on IDM is essential for OB/GYN residents who are likely to encounter pregnancy loss in their clinical practice. Previous research suggests that bad news delivery and informed decision making in early pregnancy loss can be effectively taught to medical students and residents [35]. This is beneficial not only for patients but also for providers because one specific aspect of the communication skills competency that the ACGME evaluates is informed decision making based on patient preferences and knowledge [36]. Such training could teach residents how to advise, engage, and empower patients to make informed decisions. More specifically, our analysis suggests five elements that are particularly essential in the miscarriage context: describing alternatives, considering the context of patients' lives, assessing understanding, exploring patient concerns, and determining patient desire for input from others. Specifically, our findings suggest that interns should not only be aware of the four medically viable options for managing a pregnancy loss [21], but should be willing to communicate those options with women once they have discussed with the woman what is occurring, how the miscarriage will affect her daily life, and what concerns and preferences she has for managing the miscarriage. Less than a quarter of the interns in this study provided this information to the woman before expecting her to make a decision.

It is also essential for interns to learn how to explore contextual aspects of patients' lives that might guide appropriate treatment option. Interns should ask explicit questions to help the patient see how different management options may affect daily activities. For example, it would be useful to know if the woman works and if taking time off from work is problematic. If the

woman has other children, it would be beneficial to assess whether she has access to child care. These recommendations are consistent with research suggesting that many women have preferences for specific management options in early pregnancy loss and make decisions based on how those options will affect their other responsibilities [20].

When assessing understanding, healthcare providers should use recall techniques. Instead of simply asking a woman if she understands information, it is vital to assess levels of understanding. Kemp, Floyd, McCord-Duncan, and Lang [37] determined that patients prefer healthcare providers to use a tell back-collaborative inquiry (e.g., a patient-centered approach that asks patients to reiterate information while recognizing their feelings and need for empowerment) when assessing understanding. In addition to preference, the researchers learned that patients perceived this inquiry approach to be the most effective at assessing their understanding.

Exploring the patient's concerns is vital to understand what management option she prefers. Providers must recognize that patients are not likely to express their concerns on their own [21]. Instead, they need to explicitly ask about patient concerns in an open-ended and caring way. For example, it is valuable to determine how a patient feels about miscarrying at home and seeing the pregnancy after it has been expelled from her body or how she feels about surgery and anesthesia to determine what a practical option is for her. Also, providers need to be prepared to respond to the concerns that the patient discloses and to read her nonverbal cues to assess uncertainty or discomfort because she may not disclose concerns on her own. As Politi and Street [9] noted, healthcare providers may need to assist patients in exploring their concerns, preferences, and values because they might not have considered them before being thrust into an unexpected and emotionally intense situation.

Finally, from a communication perspective, determining if the patient wants input from anyone else when making the decision could provide significant information for how to engage the patient, and possibly others, in a discussion about options and expectations. Because miscarriage is often a communal experience [38], this may be a decision that the patient feels more comfortable making with assistance from others (e.g., partner).

Acknowledgements

Funding: This work was supported by a Summer Research Grant and a Release Time for Research Grant from the IU School of Liberal Arts and the Office of the Vice Chancellor for Research at Indiana University-Purdue University Indianapolis.

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“We confirm all patient/personal identifiers have been removed or disguised so the patient/person(s) described are not identifiable and cannot be identified through the details of the story.

Table 1

Frequency of Informed Decision Making Elements

	Absent		Partial		Complete		Any*	
	(score = 0)		(score = 1)		(score = 2)			
	N	%	N	%	N	%	N	%
Discussion of the nature of the decision	0	0	0	0	40	100	40	100
Description of alternatives	0	0	29	72.5	11	27.5	40	100
Discussion of pros and cons of each alternative	2	5	29	72.5	9	22.5	38	95
Discussion of uncertainties associated with the decision	11	27.5	26	65	3	7.5	29	72.5
Assessment of the patient's understanding	35	87.5	5	12.5	0	0	5	12.5
Discussion of the patient's role in making the decision	1	2.5	3	7.5	36	90	39	97.5
Exploration of the effect of the decision on the context	31	77.5	9	22.5	0	0	9	22.5
Assessment of the patient's desire for others' input	5	12.5	29	72.5	6	15	35	87.5
Exploration of the patient's preference	1	2.5	18	45	21	52.5	39	97.5
Exploration of the patient's emotional considerations	32	80	7	17.5	1	2.5	8	20
Provision of supportive statements for the decision	16	40	16	40	8	20	24	60

Note. The nine elements of Braddock et al.'s [6, 14] IDM-18 are included as well as two additional elements shown to be important for women making decisions about miscarriage management: emotions [19] and support [30].

*The combined number and percentage of cases with partial or complete discussion of the element.